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## NOTES FROM THE OHIO STATE HERBARIUM, V.

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### A REVISED LIST OF THE HYPERICACEAE OF OHIO.

The status of the family *Hypericaceae* in the catalogues of Ohio plants has been very varied. Dr. J. L. Riddell, in his Synopsis of the Flora of the Western States, listed nine species from Ohio, including among them *Hypericum galioides* Lam. and *H. densiflorum* Pursh, species which in all probability do not occur within the State. They are both plants of the austro-riparian zone, ranging from New Jersey to Texas along the coastal plain, and inland to Tennessee. Dr. Riddell's Synopsis, as its name indicates was not restricted to Ohio, but included all of the Western States so far as he knew them, and he might possibly have seen specimens from Tennessee. A few other doubtful species have been added to our flora by some of the earlier authors, such as *H. adpressum* Bart., *H. ellipticum* Hook., and *Triadenum petiolatum* (Walt.) Britton. From these sources they were admitted to the Catalogue of Ohio State Plants by W. A. Kellerman and Wm. C. Werner, and from that to the Fourth State Catalogue by W. A. Kellerman, the latest one published. Two of the seventeen listed by Kellerman and Werner do not appear in the Fourth Catalogue, *H. densiflorum* Pursh and *H. galioides* Lam. Two others were added, *H. gymnanthum* Eng. and Gray and *H. drummondii* (Grev. and Hook.) T. and G., leaving the total number of species still at seventeen.

Under the present policy of the Department of Botany at Ohio State University only those species are included in the flora of the state which are actually represented by specimens in the State Herbarium. The necessity of such a regulation is obvious and requires no comment here. Five other species of the Fourth Catalogue are accordingly to be dropped, *H. ellipticum* Hook., *H. adpressum* Bart., *H. majus* (Gray) Britton, *H. canadense* L., and *Triadenum petiolatum* (Walt.) Britton. There is no apparent reason why the first four of these should not occur in Ohio. Their geographical distribution, as given in the standard manuals, includes this State, they have been reported from adjoining States, and it is quite probable that future collecting, especially in the northern and northwestern parts of the State, will eventually result in their re-addition to the Ohio flora. *Triadenum petiolatum*, on the other hand, is not to be expected within the State. It is essentially a plant of the coastal plain swamps, extending from New Jersey to Louisiana and along the inland extension of the coastal plain to southern Illinois, where it grows in deep cypress swamps.

Three additional species, however, are to be added to the list, *H. boreale* (Britton) Bickn., reported in 1904,\* *H. virgatum* Lam. and *H. subpetiolatum* Bickn., here reported for the first time from Ohio. Fifteen species of *Hypericaceae* are therefore actually represented in the State Herbarium, and this number will probably be raised in the future to nineteen. On this account the four species in question are included in the key.

Both the flowers and fruit are necessary for the identification of most of the species, and in collecting care should be taken that the specimens show both. Except at the beginning and close of the blooming period a single plant will generally show both. Ripe capsules may easily be sectioned to show the number of cavities and the character of the partitions either dry or after soaking in hot water.

#### KEY TO THE OHIO GENERA.

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| 1. Sepals 4, in two very dissimilar pairs.   | <i>Ascyrum</i> .   |
| 1. Sepals 5, equal or nearly so.   | 2.                 |
| 2. Receptacular glands none; flowers yellow.   | 3.                 |
| 2. Three receptacular glands alternating with the stamen-clusters; flowers not yellow. | <i>Triadenum</i> . |
| 3. Leaves normal.  | <i>Hypericum</i> . |
| 3. Leaves scale-like, appressed, flowers sessile.                                      | <i>Sarothra</i> .  |

#### ASCYRUM L.

One species in the State.

1. *Ascyrum multicaule* Michx. Not *Ascyrum hypericoides* L. or *Ascyrum crux-andreae* L. as given in the standard manuals. These two names, which are synonyms, belong to a plant of the

\* Ohio Naturalist, 5: 249, 1904.

southeastern States. *Ascyrum* is essentially a southeastern genus, and this species, which is its northernmost representative, is confined mainly to the austro-appalachian and austro-riparian areas. In Ohio it grows in dry upland woods and hillsides in the southeastern part. Specimens are in the State Herbarium from Hocking, Lawrence, Fairfield, Gallia, Scioto, Hamilton and Jackson Counties.

## HYPERICUM L.

1. Capsules 5-celled, styles 5. 2.
1. Capsules 3-celled or 1-celled. 3.
2. Leaves on main stem 6-8 cm. long, flowers 3-4 cm. wide, capsules ovoid, 2 cm. long. 1. *H. ascyron*.
2. Leaves on main stem 2-3 cm. long, flowers 2 cm. wide, capsules narrowly ovoid, less than 1 cm. long. 2. *H. kalmianum*.
3. Stamens very numerous. 4.
3. Stamens 5-12. 10.
4. Capsules 3-celled. 5.
4. Capsules 1-celled. 8.
4. Capsules incompletely 3-celled, stem 4-5 dm. high, flowers 1.5 cm. broad, short pedicelled, capsule 3-4 mm. long. (*H. adpressum*.)
5. Shrubs, capsules about 1 cm. long, leaves narrowly oblong or oblanceolate, usually revolute. 3. *H. prolificum*.
5. Herbs, capsules 3-6 mm. long. 6.
6. Leaves oblong or linear-oblong, crowded, flowers about 2 cm. wide. 6. *H. perforatum*.
6. Leaves broader, elliptical to ovate, flowers about 1 cm. wide or a little larger. 7.
7. Leaves sessile, cordate, sepals acuminate. 7. *H. maculatum*.
7. Leaves narrowed at the base, sepals obtuse. 8. *H. subpetiolatum*.
8. Styles separate, leaves oblong, sharply acute, ascending, 2-3 cm. long. 5. *H. virgatum*.
8. Styles united below into a beak, leaves obtuse or nearly so. 9.
9. Leaves narrowly oblong, 3-6 cm. long. 4. *H. sphaerocarpum* (*H. ellipticum*.)
9. Leaves elliptic or ovate, 1.5-2.5 cm. long. 11.
10. Leaves lanceolate to ovate. 14.
10. Leaves linear. 12.
11. Capsule 8-10 mm. long. (*H. majus*.)
11. Capsule 6 mm. long or less. 13.
12. Leaves obtuse or rounded at apex. 11. *H. gymnanthum*.
12. Leaves acute, ovate and cordate-clasping. 9. *H. mutilum*.
13. Bracts subulate. 10. *H. boreale*.
13. Bracts broader, foliaceous. (*H. canadense*.)
14. Leaves 3-nerved, spreading, capsule longer than the sepals. 12. *H. drummondii*.
14. Leaves 1-nerved, subulate, capsule about equalling the sepals.

1. *H. ascyron* L. In rich moist woods and river bottoms. Monroe, Holmes, Lucas, Lake, Cuyahoga, Erie, Summit, Franklin, and Richland Counties. A plant of generally northern range, in Ohio apparently with the widest distribution in the northern counties.

2. *H. kalmianum* L. Along or near the lake shore in Ottawa, Erie and Summit Counties. Occurs generally along all the Great Lakes.

3. *H. prolificum* L. Champaign, Hocking, Defiance, Franklin, Hamilton, Tuscarawas, Montgomery, Carroll, Holmes, Jackson, Coshocton, Adams, Gallia, Harrison, Portage, Stark, Wyandot, Wayne, Scioto, and Fairfield Counties. Data are not at hand concerning its ecological habits but it probably prefers dry woods.

4. *H. sphaerocarpum* Michx. Lake, Franklin, Montgomery and Clermont Counties. Should be found in dry woods in all the western counties.

5. *H. virgatum* Lam. A single specimen from Jackson County. This species is more characteristic of the coastal plain of the Atlantic from Delaware and New Jersey southward, but has been reported from a number of places inland. It is easily recognized by its leaf habit alone.

6. *H. perforatum* L. Naturalized from Europe in fields and along roadsides, Auglaize, Gallia, Ashtabula, Summit, Morrow, Highland, Lorain, Clinton, Stark, Union, Carroll, Wayne, Tuscarawas, Knox, Clark, Montgomery, Franklin, Richland, Noble, Guernsey, Ross, Harrison, Madison, Butler, Jefferson and Medina Counties.

7. *H. maculatum* Walt. Scioto, Muskingum, Franklin, Adams, Wayne, and Logan Counties.

8. *H. subpetiolatum* Bickn. Most abundant in moist, shaded woods. Stark, Highland, Lake, Richland, Erie, Shelby, Crawford, Summit, Carroll, Union, Auglaize, Clinton, Cuyahoga, Defiance, Hocking, Hamilton, Tuscarawas, Clermont, Gallia, Lorain, Huron, Morgan and Licking Counties.

9. *H. mutilum* L. In moist woods and along streams. Huron, Stark, Morgan, Jackson, Wayne, Brown, Franklin, Perry, Monroe, Scioto, Lake, Vinton, Clarke, Hamilton, Cuyahoga, Fairfield, Hocking, Clermont and Auglaize Counties.

10. *H. boreale* (Britt.) Bickn. In peat bogs, Defiance and Geauga Counties.

11. *H. gymnanthum* Engelm. and Gray. Erie County.

12. *H. Drummondii* (Grev. and Hook.) T. and G. In dry soil and on rocks, Ashtabula and Hamilton Counties. Probably introduced in the former.

#### SAROTHTA L.

A monotypic genus.

1. *S. gentianoides* L. In sand and on dry rocks, Erie, Gallia and Scioto Counties. Probably occurs elsewhere along the lake shore.

#### TRIADENUM Raf.

One species in the State.

1. *T. virginicum* (L.) Raf. In peat bogs and swamps in the northern half of the State. Wayne, Erie, Geauga, Licking, Cuyahoga and Huron Counties.